REMARKS

Claims 1-10, all the claims pending in the application, stand rejected. Claim 8 is amended.

Claim Objections

Claim 8 is objected to because of a grammatical inconsistency at line 2. Applicants' have amended claim 8 by deleting the word "at" in order to overcome this objection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rokunohe et al (6,680,453) in view of Furuta et al (6,538,224). This rejection is traversed for at least the following reasons.

As a preliminary matter, Applicants note that the Examiner has substituted the new prior art reference to Rokunohe et al for the "admitted prior art" that was used as a basis for a rejection in the previous Office Action. In distinguishing over the admitted prior art, Applicant argued that the prior art of Figs. 7 and 8 requires two separate operating mechanisms (11, 16) and two separate bridging contacts (10, 15) in order to operate the switch. These two mechanisms must be carefully coordinated to ensure safe operation. Moreover, the prior art disconnectors hold the electrodes at both removable and fixed sides within the tank by insulation support. Other distinctions also were highlighted.

The invention was explained to be a single mechanism that operates a single insulated rod 14 and causes it to drive a single movable contact 8 between grounded positions where a grounded contact 12 is coupled to a fixed contact 11 appended to a first conductor and between a second fixed contact 9 coupled to the first conductor and a fixed contact 10 that is coupled to the second conductor. This permits a single mechanism with a single bridging electrode to provide (1) a switchable coupling between first and second conductors in a gas insulated switch environment as well as (2) grounding.

Rokunohe et al

Turning to the substance of the Rokunohe et al patent, Applicants note that the disclosed structure includes a metal case 9 filled with a gas providing a three-position disconnector that has

three separate electrodes aligned along a common axis. In particular, a movable electrode 19 is provided between a fixed grounding electrode 25 and a fixed power electrode 21b. The fixed electrode 21b and movable electrode 19 are each surrounded by a shield 8.

The movable electrode 19 is driven by mechanism comprising a motor-driven shaft 24 coupled to a gear 20 that engages a rack 216 having a length L1, as explained at col. 8, line 27-65. The movable electrode 19 can travel axially between positions that places it alternatively in contact with each of electrode 21b and ground 25. As explained at col. 9, lines 1-6, because of a moveable contact portion 212, the electrode 19 may serve as the movable contact portion for both the disconnector 2 and the earthlink switch 3 of Fig. 16.

As admitted by the Examiner and as is clear from the illustration, a significant difference between the teachings of Rokunohe et al and the present invention, particularly as illustrated in Figs. 1-6, is that the movable conductor is driven by a rod 14 in the present invention, rather than a gear and rack arrangement as in the reference. This difference provides important advantages to the present invention.

As recited in claim 1, the electrically insulating operating rod is defined as extending through the first electrode in the direction of movement of the movable electrode. This is significant because it places the mechanically operated portions of the switch outside of the high voltage environment of the switch. By contrast, Rokunohe et al places the gear and pinion mechanism within the operating switch environment. This creates potential for high voltage breakdown, short circuit and misoperation. The present invention avoids such problems with its rod-based design.

Notably, Rokunohe appears to acknowledge that this is a problem since they state that "electric conductive objects" may be dislocated from the mechanism in operation. The reference appears to discount the effect of such objects but as would be clear to one of ordinary skill in the art, this may be a major problem.

Furuta et al

The Examiner looks to Furuta et al, which was cited in the previous Office Action, as a basis for Rokunohe to provide a rod and lever mechanism. The Examiner refers to Fig. 5 of

Furuta et al, and, in particular, the operating mechanism 28 that moves rod 25, lever 24 and link 26, and asserts that it would be obvious to substitute the rod of Furuta et al for the gear and rack mechanism of Rokunohe.

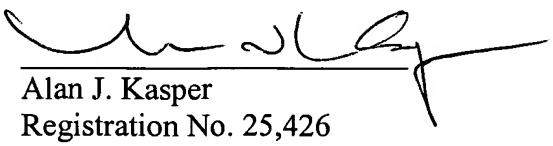
However, Furuta et al teaches a single-contact circuit breaker design which has no concern for the inadvertent discharge of high voltage. Moreover, Furuta et al does not teach that the rod passes through any fixed electrode, as claimed. Thus, Furuta et al does not even offer the same rod-based structure that can avoid a high voltage discharge problem as overcome by the present invention.

In short, Applicants respectfully submit that under basic principles of U.S. Patent law, none of the references teach or even suggest the mechanism taught by the present invention. On this basis, Applicants respectfully submit that the rejection is overcome and that all of the claims continue to be patentable over the newly cited prior art.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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